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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,470	08/06/2001	Edward J. Grenchus JR.	END920010061US1	1539

7590

10/04/2005

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EXAMINER

STIMPAK, JOHNNA

ART UNIT

PAPER NUMBER

3623

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

*K*

## Office Action Summary

Application No.

09/923,470

Applicant(s)

GRENCUS ET AL.

Examiner

Johnna R. Stimpak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>105 Requirement</u> .                  |

### **DETAILED ACTION**

1. The following is a first office action upon examination of application number 09/923,470.

Claims 1-32 are pending and have been examined on the merits discussed below.

#### ***Claim Rejections - 35 USC §101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requires of this title.

3. Claims 1-32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. For a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case, the invention is not concrete since the claimed complexity factor is not fully described so that one of ordinary skill in the art would know how to determine the complexity factor thereby leading to non-repeatable results in determining the complexity factor and staffing requirements. Since the invention is not concrete, the staffing requirements that are determined are not useful and are not tangible. Furthermore, in claim 5, the step of determining salvageable and disposable content is also not described in such a way that one skilled in the art would be able to make the determination. Specifically, there are no set guidelines for determining what characteristics make some material content salvageable and some material content disposable. As disclosed, the method of determining salvageable or disposable contents is completely subjective since depending on who is making the determination; the same part or item could be deemed as salvageable or disposable.

Since the recited process produces neither a useful, concrete, nor tangible result, claims 1-32 are deemed non-statutory subject matter.

In addition, claim 32 is mere program per se since there is no recitation of the program product being executable and no recitation of having instructions stored in a computer readable medium which is non-statutory.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, the determination of the complexity factor is not described in such a way to enable one skilled in the art to make and/or use the invention. The only explanation of the complexity factor describes it as being determined by disassembly prototyping, which is completely subjective. The difficulty of disassembling material can be viewed differently depending on who or what is performing the disassembly. The complexity factor is subjective in that it is not fully described how one would disassemble or dismantle material and determine the complexity without some type of guidelines explaining what determines the level of complexity. Without fully understanding how to

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determine the complexity factor, one would also not be enabled to determine the staffing requirements.

6. Furthermore, the step of determining salvageable and disposable content is also not described in such a way to enable one skilled in the art to make/and or use the invention.

Specifically, there are no set guidelines for determining what material content should be salvaged and what material content should be disposed of. As disclosed, the method of determining salvageable or disposable contents is completely subjective since depending on who is making the determination; the same part or item could be deemed as salvageable or disposable.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the determination of the complexity factor is unclear since there it is not fully disclosed how one of ordinary skill in the art would disassemble material and determine a complexity factor without some type of guidelines explaining what determines the level of complexity. The only explanation of the complexity factor describes it as being determined by disassembly prototyping, which is completely subjective. The difficulty of disassembling material can be viewed differently depending on who or what is performing the disassembly.

9. Also, the step of determining salvageable and disposable content is also not described in such a way to enable one skilled in the art to make/and or use the invention. Specifically, there are no set guidelines for determining what material content should be salvaged and what material

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content should be disposed of. As disclosed, the method of determining salvageable or disposable contents is completely subjective since depending on who is making the determination; the same part or item could be deemed as salvageable or disposable.

10. Claims 16-18 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. Claims 16-18 recite no structural system elements. A system is treated as an apparatus as defined by its structural limitations, however, claims 16-18 recite no structural elements. For example, in claims 16 and 18, the claimed model is construed as a collection of data or formulas and, in claim 17 it is questionable what the structure of the database is.

Clarification is required.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee and Ishii. Demanufacturing Complexity Metrics in Design for Recyclability

Grenchus et al. Demanufacturing of Information Technology Equipment

Grenchus – Overview of IBM's Demanufacturing Process

Sandborn and Murphy– A Model for Optimizing the Assembly and Disassembly of Electronic Systems

Assembly/Disassembly Optimization Model (the “salvage” model).

McLees – Rapid Prototyping

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Fields et al, US 5,111,391 – system and method for making staff schedules as a function of available resources as well as employee skill level, availability and priority

Yuri et al, US 6,249,715 – method and apparatus for optimizing work distribution

Gadh et al, US 6,725,184 – assembly and disassembly sequences of components in computerized multicomponent assembly models

Suzuki et al, US 6,226,617 – product disposal system

12. This Office action has an attached requirement for information under 37 C.F.R. § 1.105.

A complete response to this Office action must include a complete response to the attached requirement for information. The time period for reply to the attached requirement coincides with the time period for reply to this Office action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnna R. Stimpak whose telephone number is 571-272-6736.

The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JS

9/5/05



TARIQ R. HAFIZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600



### **37 CFR § 1.105 - Requirement for Information**

Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

The information is required to identify products and services embodying the disclosed subject matter of determining staffing requirements for a demanufacturing enterprise. Based on page 27 of the article "The Quest for Environmental and Productivity Improvements at the IBM Demanufacturing and Asset Recovery Center", by two named individuals on the present patent application, Edward Grenchus and Robert Keene, and also two additional individuals, Charles Nobs and Larry Yehle (submitted as prior art in application number 09/524,366), in 1996-1997 a disassembly line process was established to sequentially dismantle equipment, "teardown" analysis modeling was used to provide an analytical approach to disassembly, and staffing philosophy was modified for matching staffing required for specific dismantle teams.

Examiner requests any information about determining staffing requirements for a demanufacturing enterprise that was known and/or used at the time of submission of the present patent application. For example, the claims are directed to dismantling material and determining complexity factors for determining staffing requirements, whereas, the article discloses dismantling equipment and identifying skills for specific dismantling and matching staffing required for the dismantling. There appears to be a relationship between the claimed subject matter and the subject matter disclosed in the above-identified article.

The fee and certification requirements of 37 C.F.R. § 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents

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within the scope of this requirement under 37 C.F.R. § 1.105 that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 C.F.R. § 1.105 are subject to the fee and certification requirements of 37 C.F.R. § 1.97.

The applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR 1.56. Where the applicant does not have or cannot readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained will be accepted as a complete response to the requirement for that item.

This requirement is an attachment of the enclosed Office action. A complete response to the enclosed Office action must include a complete response to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action, which is 3 months.

In response to this requirement, please provide the citation and a copy of each publication that any of the applicants authored or co-authored and which describe the disclosed subject matter of determining staffing requirements for a demanufacturing enterprise.

In response to this requirement, please provide the citation and copy of each publication that is a source used for the description of the prior art in the disclosure. For each publication, please provide a concise explanation of that publication's contribution to the description of the prior art.

In response to this requirement, please provide the citation and a copy of each publication that any of the applicants relied upon to develop the disclosed subject matter that describes the

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applicant's invention, particularly as to developing staffing requirements for a demanufacturing enterprise. For each publication, please provide a concise explanation of the reliance placed on that publication in the development of the disclosed subject matter.

In response to this requirement, please provide the citation and a copy of each publication that any of the applicants relied upon to draft the claimed subject matter. For each publication, please provide a concise explanation of the reliance placed on that publication in distinguishing the claimed subject matter from the prior art.

In response to this requirement, please state the specific improvements of the claimed subject matter in claims 1-32 over the disclosed prior art and indicate the specific elements in the claimed subject matter that provide those improvements. For those claims expressed as means or steps plus function, please provide the specific page and line numbers within the disclosure that describe the claimed structure and acts.

In responding to those requirements that require copies of documents, where the document is a bound text or a single article over 50 pages, the requirement may be met by providing copies of those pages that provide the particular subject matter indicated in the requirement, or where such subject matter is not indicated, the subject matter found in applicant's disclosure.

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